

the teachings of Turner that CBC is the major cannabinoid in freshly harvested drug-type cannabis material, which would make the amount of 30% obvious". Applicant respectfully disagrees and maintains that CBC is not abundant in most mature cannabis plants.

Most cannabis plants are bred specifically for high and predominant THC content, and as a result, the second most abundant cannabinoid in most mature cannabis plants may comprise less than 2% of the total cannabinoids. A sampling of the cannabinoid composition during the life cycle of several cannabis plants reveals that the proportion of CBC in the total cannabinoid fraction decreases with ageing of the plant (see, e.g., Table 1 of Vogelmann et al., J. Nat. Prod., 1988, 51 (6), pp 1075–1079, cited in the Information Disclosure Statement dated June 5, 2008; and pages 19-20 and Figures 3A-C of WO 2009/125198, cited in the Information Disclosure Statement dated April 7, 2010). Vogelmann et al. clearly disclose that, in the flowering plant, (the cannabinoids predominate in the flowering heads) CBC is found in relatively small amounts (127 µg CBC v. 3575 µg THC). Accordingly, the use of a plant extract comprising greater than or equal to 30% CBC for treating a mood disorder is not obvious.

Second, Brooke et al. does not teach that CBC is useful for treating mood disorders. Brooke et al. recites that "[s]everal medicinal uses have been found for the active ingredients of cannabis, including the ingredients tetrahydrocannabinol (THC), cannabinol (CBN), cannabidiol (CBD) and cannabichromene (CBC)" (col. 1, lines 23-26, emphasis added). Brooke et al. further discloses that the medicinal uses of cannabis include, among a list of ten applications, stress and depression. Brooke et al. also states that THC is the "primary active ingredient of cannabis" (col. 1, lines 42-44). Applicant respectfully asserts that Brooke et al. makes no comment on the activity of each of the specified ingredients of cannabis, and thus the person of ordinary skill in the art would not obtain any suggestion from Brooke to use CBC for treating any particular disorder, let alone for treating the specific disorder recited in the instant claims. In particular, Brooke et al. does not teach that CBC is useful for treating mood disorders. Merely because cannabis is taught to have a number of medicinal uses, and CBC is listed as one of the active ingredients (though not the "primary"

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. H0664.70032US00.

Dated: March 1, 2011

Respectfully submitted,

By M. Holloway
Minita G. Holloway
Registration No.: 67,594
WOLF, GREENFIELD & SACKS, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000